

INITIAL REVIEW EXPOSURE REPORT (IRExR)

Chemical ID: P-18-0116
Reviewer: Todd/HDJ

Results Table: Dose, Concentration, and Days Exceeded Results Summary

Exposure Scenario ¹	Water						Landfill	Stack Air		Fugitive Air	
Release activity(ies) ² ; exposure calculation(s) ³	Drinking Water		Fish Ingestion		7Q10 ⁴ CC = 4	PDM Days Exceeded	LADD	ADR (24-hr conc.)	LADD (Annual conc.)	ADR (24-hr conc.)	LADD (Annual conc.)
	ADR	LADD	ADR	LADD							
	mg/kg/day	mg/kg/day	mg/kg/day	mg/kg/day	µg/l	# Days	mg/kg/day	mg/kg/day (µg/m ³)	mg/kg/day (µg/m ³)	mg/kg/day (µg/m ³)	mg/kg/day (µg/m ³)
USE: max acute eco	2.30E-04	---	5.90E-05	---	1.05E+01	---	---	---	---	---	---
USE: PDM1	---	---	---	---	1.05E+01	■	---	---	---	---	---
USE: Max LADD	---	3.74E-07	---	4.04E-08	---	---	---	---	---	---	---
Disposal: max acute eco	7.98E-07	---	3.70E-07	---	3.61E-02	---	---	---	---	---	---
Disposal: PDM1	---	---	---	---	3.61E-02	■	---	---	---	---	---
Disposal: Max LADD	---	2.34E-09	---	2.54E-10	---	---	---	---	---	---	---

¹ Exposure scenario titles consist of release activity followed by exposure calculation abbreviation.

² Release activities are from engineering report's Manufacturing (Mfg), Processing (Proc) and Use release activity labels. Multiple release activities are combined in one exposure scenario if their releases occur at same location.

³ Exposure calculations are Acute Dose Rate (ADR), Lifetime Average Daily Dose (LADD), and Probabilistic Dilution Model (PDM). There may be one, two, or all three exposure calculations per exposure scenario. CC is the aquatic concentration of concern.

⁴ This column displays concentration values for the 7Q10 streamflow, which is defined as the average daily streamflow of the seven consecutive days of lowest flow within a ten year period.

Remarks:

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-18-0116

Assessor: Todd/HDJ

ENVIRONMENTAL RELEASES

Scenario#:1

Number of Release Sites: 1

Release Activity:

USE: Max ADR

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:

1	1	1	1	1
(kg/yr)	(kg/yr)	(kg/yr)	(kg/yr)	(kg/yr)

Non-sludge/Sludge

Release Days/yr:

365	365	365	365
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Per Site Release:

1	1	1	1
(kg/site/day)	(kg/site/day)	(kg/site/day)	(kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-18-0116

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 1

Number of Sites ■

RELEASE ACTIVITY:USE: Max
ADR

SIC-CODE DESCRIPTION: ■■■■■■■■■■

SIC-CODE (S): ■■■■■

EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
■■■	■	■■■	■■■■■	■■■	■■■

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	2825.61	935.49	634.16	514.20	2.02E-02	6.09E-02	8.99E-02	0.11
ALL	10	50.57	9.38	5.41	4.53	1.13	6.08	10.54	12.58

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD _{pot}	6.69E-09	3.74E-07	mg/kg/day	7.23E-10	4.04E-08	mg/kg/day
LADC _{pot}	5.14E-07	2.87E-05	mg/L	7.72E-06	4.31E-04	mg/kg
Acute						
ADR _{pot}	2.31E-06	2.30E-04	mg/kg/day	1.06E-06	5.90E-05	mg/kg/day

SIC Code Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-18-0116

Assessor: Todd/HDJ

ENVIRONMENTAL RELEASES

Scenario#:2

Number of Release Sites ■

Release Activity: USE: PDM1

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:

■	■	■	■
(kg/yr)	(kg/yr)	(kg/yr)	(kg/yr)

Non-sludge/Sludge

Release Days/yr:

■	■	■	■
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Per Site Release:

■	■	■	■
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(kg/site/day)

(kg/site/day)

(kg/site/day)

(kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-18-0116

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 2

Number of Sites: 1

RELEASE ACTIVITY:USE:
PDM1

SIC-CODE DESCRIPTION: 2820

SIC-CODE (S): 2820

EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
100	365	1.0	1.0	100	1.0

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	2825.61	935.49	634.16	514.20	2.02E-02	6.09E-02	8.99E-02	0.11
ALL	10	50.57	9.38	5.41	4.53	1.13	6.08	10.54	12.58

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD _{pot}	6.69E-09	3.74E-07	mg/kg/day	7.23E-10	4.04E-08	mg/kg/day
LADC _{pot}	5.14E-07	2.87E-05	mg/L	7.72E-06	4.31E-04	mg/kg
Acute						
ADR _{pot}	2.31E-06	2.30E-04	mg/kg/day	1.06E-06	5.90E-05	mg/kg/day

SIC Code Comments:

Chemical ID: P-18-0116

SCENARIO #: 2

RELEASE ACTIVITY: USE: PDM1

SIC CODE DESCRIPTION:

ASSOCIATED SIC CODES:

SIC CODE RESULTS						
COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
████	█	█	████	████	████	████

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-18-0116

Assessor: Todd/HDJ

ENVIRONMENTAL RELEASES

Scenario#:3

Number of Release Sites: ■

Release Activity: USE: Max LADD

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:

■	■	■	■
(kg/yr)	(kg/yr)	(kg/yr)	(kg/yr)

Non-sludge/Sludge

Release Days/yr:

■	■	■	■
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Per Site Release:

■	■	■	■
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(kg/site/day)

(kg/site/day)

(kg/site/day)

(kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-18-0116

SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 3

Number of Sites: ■

RELEASE ACTIVITY:USE: Max
LADD

SIC-CODE DESCRIPTION: ■■■■■■

SIC-CODE (S): ■■■■■■

EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
■■■	■	■■■	■■■	0.00	15.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	2825.61	935.49	634.16	514.20	N/A	N/A	N/A	N/A
ALL	10	50.57	9.38	5.41	4.53	N/A	N/A	N/A	N/A

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD _{pot}	6.69E-09	3.74E-07	mg/kg/day	7.23E-10	4.04E-08	mg/kg/day
LADC _{pot}	5.14E-07	2.87E-05	mg/L	7.72E-06	4.31E-04	mg/kg
Acute						
ADR _{pot}	N/A	N/A	mg/kg/day	N/A	N/A	mg/kg/day

SIC Code Comments:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-18-0116

Assessor: Todd/HDJ

ENVIRONMENTAL RELEASES

Scenario#:4

Number of Release Sites: ■

Release Activity: Disposal: Max ADR

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:

■	■	■	■
(kg/yr)	(kg/yr)	(kg/yr)	(kg/yr)

Non-sludge/Sludge

Release Days/yr:

■	■	■	■
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Per Site Release:

■	■	■	■
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(kg/site/day)

(kg/site/day)

(kg/site/day)

(kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-18-0116

Assessor: Todd/HDJ

ENVIRONMENTAL RELEASES

Scenario#:5

Number of Release Sites: ■

Release Activity:

Disposal: PDM1

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:

■	■	■	■
(kg/yr)	(kg/yr)	(kg/yr)	(kg/yr)

Non-sludge/Sludge

Release Days/yr:

■	■	■	■
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Per Site Release:

■	■	■	■
(kg/site/day)	(kg/site/day)	(kg/site/day)	(kg/site/day)

Remarks:

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-18-0116

SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 5

RELEASE ACTIVITY: Disposal: PDM1

SIC CODE DESCRIPTION:

ASSOCIATED SIC CODES:

SIC CODE RESULTS

COC (µg/L)	Percent of Year COC Exceeded	Number of Days COC Exceeded	Release days/year	Loading (kg/site/day)	Waste Water Treatment (%)	High/Avg Analysis
■	■	■	■	■	■	■

INITIAL REVIEW EXPOSURE REPORT

Chemical ID: P-18-0116

Assessor: Todd/HDJ

ENVIRONMENTAL RELEASES

Scenario#:6

Number of Release Sites

Release Activity:

Disposal: Max LADD

Release Description:	WATER	LANDFILL Non-sludge/Sludge	STACK	FUGITIVE
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Total Releases:

	(kg/yr)	(kg/yr)	(kg/yr)	(kg/yr)

Non-sludge/Sludge

Release Days/yr:

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Per Site Release:

	(kg/site/day)	(kg/site/day)	(kg/site/day)	(kg/site/day)

Remarks:

Chemical ID: P-18-0116

SCENARIO #: 6 Number of Sites ██████████ RELEASE ACTIVITY: Disposal:
Max LADD

SIC-CODE DESCRIPTION: [REDACTED]

SIC-CODE (S): [REDACTED] EXPOSED POPULATION: Adult

WWT REMOVAL (%)	RELEASE DAYS	PRETREATMENT RELEASE (kg/site/day)	POSTTREATMENT RELEASE (kg/site/day)	DWT (%)	BCF (L/kg)
████	█	████	████	0.00	15.00

AQUATIC EXPOSURE ESTIMATES - SURFACE WATER									
PLANT TYPE	% ILE FACILITY	STREAM FLOW (MLD)				STREAM CONC. (µg/l)			
		Harmonic Mean	30Q5	7Q10	1Q10	Harmonic Mean	30Q5	7Q10	1Q10
ALL	50	288.00	123.84	78.18	66.05	N/A	N/A	N/A	N/A
ALL	10	39.60	13.29	7.76	7.57	N/A	N/A	N/A	N/A

DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES						
Exposure Units	Drinking Water Results		Drinking Water Units	Fish Ingestion Results		Fish Ingestion Units
	50%	10%		50%	10%	
Cancer						
LADD _{pot}	3.22E-10	2.34E-09	mg/kg/day	3.49E-11	2.54E-10	mg/kg/day
LADC _{pot}	2.48E-08	1.80E-07	mg/L	3.72E-07	2.70E-06	mg/kg
Acute						
ADR _{pot}	N/A	N/A	mg/kg/day	N/A	N/A	mg/kg/day

SIC Code Comments: